NPS Welcomes Provost Dr. Steven Lerman

by Kenneth A. Stewart

NPS welcomed Dr. Steven R. Lerman as the university’s 15th provost, Aug. 29. He comes to NPS after serving as Provost and Executive Vice President of Academic Affairs at The George Washington University (GW) and as a vice chancellor at the Massachusetts Institute of Technology (MIT). At both institutions, he worked to build a sense of community.

Lerman’s first order of business is to get out and familiarize himself with NPS students, faculty and staff, and to acquaint himself with the university’s rich history and traditions.

“I do not want to make any rash decisions early on that are not based on a complete understanding of the institution. I am going to spend a lot of time going out and talking to the students, faculty and staff and just listening more than speaking,” said Lerman. “My first goal is to learn, the second is to lead a process to think about the strategy of the university,” said Lerman.

“There has been a great history here, I want to build on that. I bring a sense of how to build a cohesive community around education. The ability to bring together students, faculty and staff around the shared mission of education and the ability to help all of us to think about how to best accomplish our mission, how to be better.”— Dr. Steven Lerman

For Lerman, “being better” seems to mean being engaged. When discussing his educational philosophy, he stresses a hands-on approach.

“Whether or not education is delivered in person or at a distance, it is a contact sport. The interaction between students and faculty, students together, and faculty with students, is really at the core of what makes people learn well and build a deep understanding of subject matter,” Lerman said.

“In my experience, people have to engage with the material that they are teaching or learning. They have to talk about it. They have to talk with others about it. They have to integrate it with the rest of their knowledge … I think NPS does a great job with that in its programs and I think we will continue to do great work,” he continued.

Lerman also references the merits of active, studio and experiential learning noting that while each of these learning styles is different, they share a common characteristic that goes beyond “just listening to someone talk.”
NPS Researcher Living Under the Sea at Aquarius Habitat

By Dale M. Kuska

NPS Department of Mechanical and Aerospace Engineering Research Associate Professor Noel Du Toit spent several days living 60 feet underwater at the Aquarius Reef Base habitat in the Florida Keys.

Du Toit is an Aquanaut with the NASA Extreme Environment Mission Operations (NEEMO) 21 mission, and is performing his own research in human-robot interaction while assisting NASA as it prepares for a potential future expedition to Mars.

“This truly has been an amazing experience,” Du Toit said from the habitat.

“Being a diver, I have dived on my share of reefs, but that does not compare to living underwater. It truly feels like an alien world when you walk on the seafloor to execute science tasks, and that makes this facility and mission an excellent opportunity to test various operational concepts,” he continued.

Du Toit says his experience living underwater has been truly eye-opening, especially with regard to his own research in human-robot interaction and diver-assist robotics.

“For all the progress that we have made in the field of AUVs [autonomous underwater vehicles] over the last two or so decades, we have a long way to go. That becomes apparent when you get to observe these systems underwater over longer periods of time, as this mission has allowed me to do,” he said.

“This is even more evident when compared to the grace and effortlessness with which natural organisms navigate the oceans,” Du Toit continued. “Underwater robotic systems have become substantially more robust … Our efforts in underwater perception and localization remain valid, but there is much work to be done on the physical systems and hardware before our systems will seem appropriate for this environment.”

Du Toit says the long duration of operating his robotics systems underwater has allowed him to truly understand the strengths and weaknesses of their capabilities, and where further study is needed.

“The systems that we have currently are sufficient when conditions are good, but in the real world, that is seldom the case. Yet, my underwater home is surrounded by much smaller fish, capable of dealing with these challenges with effortlessness and grace. There is clearly much work to be done.”

And that work is continuing to contribute to the development of advanced diver-assist technologies and may one day aid in the human exploration of Mars.
NPS to Welcome First Malian Cohort

By Kenneth A. Stewart

NPS is slated to welcome a cohort of graduate students from the Republic of Mali in March of 2017. The group of 13 students from various ministries will report to NPS next year after completing language training in San Antonio, Texas.

Ambassador Paul A. Folmsbee with the U.S. Embassy in Bamako, Mali discussed the U.S. commitment to assisting with the training of Malian security and defense forces in a recent press release. He noted that the creation of Crisis Response Teams and National Security Fellowship programs, like the one that will bring Malian officials to NPS, demonstrates a "solid and long-term commitment between our two peoples to improving the governance of the security sector."

The Malian students will be traveling to NPS from Mali’s newly-established Inter-Ministerial Security Coordination Office – part of an effort to bring together Mali’s various ministries in order to focus on national security and interagency cooperation. But in order to turn that vision into an operational reality, the Malian government recognized a need for advanced education for its ministers – that is where NPS entered the picture.

“The government of Mali voiced throughout the process of creating the inter-ministerial coordination office that it suffered from a lack of human capital – particularly with regard to executive management staff,” explained Army Maj. Nick Gregoire, a Foreign Area Officer at the U.S. Embassy in Mali.

According to NPS Senior lecturer Carolyn Halladay with the university’s Department of National Security Affairs, the Republic of Mali identified a need for both strategic studies and greater interagency cooperation. They began to search for a place where they could send upcoming ministry officials.

After exploring their options, they decided upon NPS.

“The emphasis of their plans for NPS has shifted from the operational concern of terrorism to the larger concern of making the whole of government to work together,” said Halladay. “It is going to be a tremendous challenge, but it will be fantastic.”

For Gregoire, turning to NPS to meet that challenge was an easy choice.

“Having done business with NPS in the past, the country team was aware of NPS’ diverse catalogue, vast network of academic, practical and vocational resources as well as highly adaptive staff.

“Very early in the discussions, the embassy began simultaneously negotiating with both the government of Mali and NPS, knowing that what our national security staff partners require will be available at NPS,” said Gregoire.

“The idea was to get the right group of Malians to NPS where they could receive not only substantive knowledge, but also an opportunity to bust down the barriers between them,” added Halladay.

At NPS, the Malian cohort will benefit from the university’s interdisciplinary faculty and from funding through the Security Governance Initiative, which was created by the Obama administration in 2014 to focus on security issues in North Africa.

“It’s a fantastic opportunity. This Mali initiative may be the first on this scale under the Security Governance Initiative,” said Halladay. “It is a happy, harmonic convergence of everything that is good about NPS, international and innovative.”

NPS International Graduate Programs Office Director Alan Scott explained how graduate education can be used by programs like the Security Governance Initiative to enhance the national security of partnered and allied nations.

“The hope is that [the Malian contingent] will conduct thesis work at NPS that will roll directly into an implementable Malian strategic plan,” said Scott.

If successful, Halladay and Scott hope that the curriculum being developed at NPS will serve as a model for other nations.

Have a story to share?
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NPS Says Farewell to Former Provost, Board Member

By Kenneth A. Stewart

NPS was saddened to learn of the passing of former university provost and long-time NPS Board of Advisors (BOA) member, Dr. Jack Borsting, Aug. 16.

Borsting came to NPS in 1959, joining the university’s Department of Mathematics. He rapidly rose through the ranks, and was asked to chair the Department of Operations Research (OR) at just 35 years of age.

“He immediately began to grow the department’s faculty in response to Navy demand for its curriculum, and to recruit new faculty. Jack set the groundwork for what is now arguably considered the best teaching and research faculty in operations research anywhere,” said NPS Distinguished Professor of Operations Research Dr. Dave Schrady.

Borsting went on to be named Provost and Academic Dean in 1974, and served in this capacity until then President Jimmy Carter nominated him to the position of Assistant Secretary of Defense (Comptroller) in 1980.

In spite of his countless accomplishments as an administrator and strategic visionary for NPS, Borsting is fondly remembered by many for his impact in the classroom.

“Many people will remember Dr. Jack Borsting for his leadership in academic and government administration. Instead, I would like to speak for his many students in recalling his inspirational teaching,” recalled retired Navy Capt. Wayne Hughes, Professor of Practice in the OR department, and a former student of Borsting’s.

“Jack taught me probability theory in my first quarter as a student. He instilled a life-long love of probability that helped to solve real-world operations analysis problems.”

Borsting’s accomplishments were broad, but his time at the university was not without challenge. He shared his thoughts on some of those challenges in an oral history prepared by the Military Operations Research Society (MORS).

“My main responsibility as Provost was to get the school out of a deep hole. The school student body around 1971 was about 1,800 [students]. There had been cuts in graduate education by various organizations in Washington, including the congress,” Borsting wrote. “When I took over, the student body was 1,200 and going down. It went down to 900 in the next two years.”

Under Borsting’s leadership, the university eventually recovered.

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Former Acting Provost Jim Newman weighed in on the importance of federal service when welcoming the new federal employees.

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NPS Chief of Staff Capt. Anthony Parisi encouraged the new faculty and staff members attending the orientation to embrace the diversity and strength of the entire NPS faculty and staff team.

“We’re all in the Navy now,” he said. “This is our ship … and we are all Sailors and Marines on one team.”

Orientation Introduces New Faculty, Staff to NPS

By MC2 Michael Ehrlich

New faculty and staff at NPS will benefit from a recently established new employee orientation that aims to bring together everyone from human resources and security to NPS leadership in an effort designed to ensure that new hires integrate as seamlessly as possible into the university.

“The primary goals of the new employee orientation are to provide an overview of the NPS mission and to meet the NPS leadership; to share relevant information on various programs, benefits and resources available to new employees,” explained NPS Director of Human Resources Ermelinda Rodriguez-Heffner. “The employees also come away with a list of resources and points of contact they can reach out to for additional information.”

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Former Commandant Visits NPS
By MC2 Michael Ehrlich

Former Commandant of the Marine Corps, and NPS Hall of Fame alumnus, retired Gen. Michael Hagee addressed Marine Corps students in the Mechanical and Aerospace Engineering Auditorium, Aug. 16. Hagee discussed the value of an NPS education, and encouraged students to overcome the fear of failure by embracing the lessons learned from making mistakes.

“If you don’t have somewhere in the area of 90 percent of your good ideas failing, then you’re not trying hard enough,” said Hagee. “You have to be able to go out and try something, fail, and get up and try again.”

Hagee, a graduate of NPS’ electrical engineering program, was inducted into the university’s Hall of Fame on May 23, 2009. He offered his thoughts on his own educational experience while at NPS, and encouraged the students to make the most of their short time in Monterey.

“I would argue that a school like this is where you get deep knowledge about a subject. Then you bring your operational and tactical experience together with that, and it will produce innovation,” he said.

Graduate School of Business and Public Policy (GSBPP) contract management faculty were honored with the Contract Management Education Award from the National Contract Management Association (NCMA) in Ingersoll Hall, Aug. 5. The award recognizes universities that exemplify the NCMA’s mission of advancing the contract management profession through higher education.

NPS recently wished fair winds and following seas to Department of Operations Research Senior Faculty member Capt. Jeff Hyink who is retiring after 25-years of naval service.

During the ceremony, NPS President retired Vice Adm. Ronald A. Route awarded Hyink with the Legion of Merit (Gold Star in lieu of Second Award). He also received a Letter of Congratulations upon his retirement from the Office of the Governor, signed by California Governor Jerry Brown Jr.

Naval Support Activity Monterey Quality of Life Director Megan Ryan is saying goodbye to NPS after 18 years of service. Beginning at NPS in 1996, her efforts have made a lasting impact on the university.

Ryan considers the wide-ranging services provided by the NSAM, Morale, Welfare and Recreation (MWR) department “her baby.” It’s a sentiment that rings true through the dedication and commitment that exemplified her 35-years of work for the Department of the Navy.

Her move is also the fulfillment of a dream of sorts, Ryan will be checking of an item from her bucket list as she moves to Spain — a country that she has longed to live and work in for many years.

Send your campus news and notes to update@nps.edu.

NPS Faculty Participate in DEFCON 24
By Javier Chagoya

NPS Research Associate Mike Thompson, Senior Lecturer Chris Eagle and Professor of Practice in Cyber Operations George Dinolt recently participated in the world’s ultimate attack and defend computer contest at DEFCON 24’s Cyber Grand Challenge held in Las Vegas, Nevada, Aug. 4.

Eagle and Thompson spent 11 days at the convention center preparing for what is known as the final event. Unlike in past iterations, this year’s DEFCON competition featured banks of computers and servers that were the only players in the world’s first automated network defense tournament.

“Everyone’s computers in the Cyber Grand Challenge are essentially running autonomously, in a chess game of encrypted behaviors. We just stepped back as the contributing team of humans who created programs endowed with expert systems,” said Thompson.

An ‘expert system’ is built within a process called knowledge engineering, during which knowledge about the domain is acquired from human experts or other engineers. Eagle and Thompson say the systems are designed essentially to imitate the human capabilities of thinking and sensing.

“We had our computers programmed to turn attacks back to the adversary much beyond DARPA’s basic objective,” said Eagle. “Ours was a disruptive game, like interrupting a person’s train of thought to gain the advantage.”

Eagle, Thompson and Dinolt all agree their contributions are supported by present and past NPS students, their theses, and the civilian Scholarship for Service students and service academy interns who have spent time on campus contributing to the body of knowledge that makes competitions like this year’s Cyber Grand Challenge possible.

“I came back fatigued, but also with a new understanding in the realm of the possible. While at the cyber challenge event, it was invigorating to see recent NPS graduates and last year’s NPS Army Cadet interns,” Eagle said and last year’s NPS Army Cadet interns,” Eagle said.
Defense Energy Seminar Highlights China’s Growing Thirst for Energy

By MC1 Lewis Hunsaker

Dr. Fred Beach, assistant director of policy studies at the University of Texas, Austin, offered the latest Defense Energy Seminar entitled, “Fueling the Dragon: Energy and China,” in the Mechanical and Aerospace Engineering Auditorium, Aug. 12.

Beach, who is an NPS alumnus, focused on China’s massive energy consumption, and its global status as the world’s largest oil importer, solar panel manufacturer, and carbon dioxide emitter.

“The beast is hungry, the beast is growing, and the beast needs energy,” Beach said. “The problem is big, and it’s getting bigger for China.”

China currently boasts the world’s largest population, followed by India and the United States. China is predicted to peak at 1.4 billion people in about seven years, Beach notes, but India is still growing rapidly. By 2050, those two countries alone could increase by the equivalent of the United States.

“These two countries, India and China, are going to drive the world for the next 20, 30, or 40 years … your professional lifetimes, whether you like it or not.

“It’s just simply demographics. They are going to drive the world’s economy and how it evolves,” Beach warned.

Beach continued by offering testament to the rapid expansion of China’s global economy in recent years. “In 1990, China had an economy smaller than Italy, United Kingdom, Canada or Spain, with a country of 1.3 billion people. But just 13 years later, China has the second largest global economy in the world, and that economic vitality and growth comes at a price,” Beach said.

In 2012, China obtained 66 percent of its energy use from coal, 20 percent from oil, eight percent from hydroelectric power, five percent from natural gas, one percent from nuclear, and one percent from renewables.

“Due to China’s high demand on coal in 2010, they became a net importer of coal. China consumes more coal than the rest of the world combined, and growing,” said Beach, who added that China is also now the world’s largest importer of oil.

“Between 2002 and today, China has been building a new coal power plant every week. Electrification is what really allows our standard of living and that is what China is doing,” he explained.

Beach holds a Ph.D. from the University of Texas at Austin. At NPS, he credits his rail gun thesis project as his “claim to fame.”

Focus On … Training
A Monthly Look at Names and Faces on Campus

NPS Training Officer Lt. Kristen Connor shoulders many responsibilities at NPS, but her efforts to consolidate training requirements have, in the words of one customer, “illuminated a long standing darkness.”

“If students [or staff] have any training questions or issues that they want to learn about or if they want to be put into training courses for follow on assignments, they come to me … mainly it’s making sure the students, faculty and staff have the resources they need to complete their training,” said Connor.

Connor also serves on NPS’ heritage committee, as a wardroom officer, and as a suicide prevention coordinator. If that was not enough, she is also the assistant to the senior watchbill officer and somehow found time to help coordinate the Navy Ball this year.

“NPS has proven to be one of the most professionally challenging positions I’ve held and I have learned so much,” said Connor.

Connor previously served as a Naval Flight Officer in both Prowlers and Growlers with Electronic Attack Squadron 133 out of Whidbey Island. Her work at NPS has allowed her to demonstrate her ability to juggle multiple assignments and her time on shore has given her the opportunity to face what will perhaps be her greatest challenge of all – starting a family.
Any Day at NPS ...

Retired Rear Adm. Jerry Ellis, left, retired Navy Capt. Maury Wortham, middle, and Capt. Philip Vargas, right, are pictured outside Herrmann Hall, Aug. 24. Wortham, now 100 years old, joined the Navy in 1941. (U.S. Navy photo by MC3 Brian H. Abel)

Assistant Secretary of Defense for Manpower and Reserve Affairs the Honorable Todd A. Weiler attends a data analytics capabilities roundtable discussion with NPS leadership in Herrmann Hall, Aug. 29. (U.S. Navy photo by MC1 Lewis Hansaker)

Intern Morgan Ewing with NPS Department of Electrical and Computer Engineering presents her research project during the Monterey Bay Summer Research Symposium at California State University Monterey Bay, Aug. 12. (U.S. Navy photo by MC2 Victoria Ochoa)

NPS Director of Programs Cmdr. Yolanda Kern offered her thoughts on the Navy’s progress toward offering greater opportunities to advance their careers across the fleet during Women’s Equality Day, Aug. 26. (U.S. Navy photo by MC2 Victoria Ochoa)

Chee Kiong Ong, left, with Singapore’s Defense Science and Technology Agency, and Singaporean Navy Cmdr. Chew Kung Tan, right, work on their passive, hybrid radio frequency intercept system in Spanagel Hall, Aug. 9. (U.S. Navy photo by Javier Chagoya)

NPS student Ensign Jim Catina listens to a lecture in Watkins Hall, Aug. 26. Catina is one of 20 Bowman Scholars selected to pursue their master’s degree upon graduation from the U.S. Naval Academy. (U.S. Navy photo by Javier Chagoya)

The military innovation community is making waves in the Department of Defense, most recently through Athena Monterey 1.0.

The Athena Project creates a platform for Sailors and Marines at the deckplate level to present innovative ideas in an open forum.

Athena Monterey 1.0 took place at the London Bridge Pub where students and faculty presented several significant ideas during the event that could improve the way the Navy does business.

The next upcoming event is the Defense Entrepreneurs Forum, which is coming to Silicon Valley (DEFxSV) in November. DEF is an innovation community that brings together entrepreneurs and innovators who are disrupting the status-quo by inspiring, connecting, and empowering young leaders to have an outsized impact in their professions. Details for this event are pending and will be sent out shortly.

The President’s Student Council (PSC) will be sending out a survey early this month to hear student opinions on various subjects to improve academic life.

We also want to hear about any issues regarding housing, local schools, medical, and base services. We will evaluate the surveys and bring up student issues during the next Town hall Meeting on September 12. We want to hear your collective voice.

HISPANIC HERITAGE MONTH (SEPT. 15-OCT. 15)

Have a story to share? Public Affairs is constantly seeking interesting news and stories for Update NPS. Send your tips to pao@nps.edu.
On Campus this Month

**September 5**
Labor Day

**September 8**
Suicide Prevention Training
3:00 p.m. in King Auditorium

**September 9**
Defense Energy Seminar
Transitions to Alternative Vehicles and Fuels
1:00 p.m. in the MAE Auditorium.

**September 19 - 22**
Thesis & Research Week

**September 20**
New Student Orientation
7:30 a.m. in King Auditorium

**September 23**
Summer Quarter Graduation
10:00 a.m. in King Auditorium

**Historical Highlights**

September 2016 marks the one-year anniversary of the return of NPS’ famed peacocks to the university campus. NPS has been home to peacocks since, at least, the 1960s, when they were introduced to help beautify campus. But, amidst complaints of noise and droppings, these birds were relocated to the Society for the Prevention of Cruelty to Animals (SPCA) by 1970. Reintroduced a few years later, the population increased to nearly two dozen peahens and peacocks by the early 1990s. As numbers grew, so did reports of noise and birds attacking cars. Only two males remained by the mid-1990s. An attempt to increase the population recommenced around 2000 with the introduction of five peahens, but several years later, the peahens were sent to a local farm. Tragedy struck in 2013, and peacocks disappeared from campus until two were reintroduced in September 2015. One peacock, named Admiral Chester Nimitz, remains NPS’ unofficial mascot.

*Historical Highlights are provided by the Dudley Knox Library.*